

1 [0098] **ABSTRACT OF THE DISCLOSURE**

2 [0099] We have developed a method of PECVD depositing a-SiN_x:H films which are
3 useful in a TFT device as gate dielectric and passivation layers, when a series of TFT
4 devices are arrayed over a substrate having a surface area larger than about 1 m², which
5 may be in the range of about 4.1 m², and even as large as 9 m². The a-SiN_x:H films
6 provide a uniformity of film thickness and uniformity of film properties, including
7 chemical composition, which are necessary over such large substrate surface areas. The
8 films produced by the method are useful for both liquid crystal active matrix displays and
9 for organic light emitting diode control.